AUTHORITY: 30 U.S.C. 957, 961.

SOURCE: 31 FR 10607, Aug. 9, 1966, unless otherwise noted.

Subpart A—General Provisions

§27.1 Purpose.

The regulations in this part set forth the requirements for methane-monitoring systems or components thereof to procure certification for their incorporation in or with permissible equipment that is used in gassy mines, tunnels, or other underground workings and procedures for applying for such certification.

[31 FR 10607, Aug. 9, 1966, as amended at 52 FR 17515, May 8, 1987]

§27.2 Definitions.

As used in this part:

(a) *MSHA* means the United States Department of Labor, Mine Safety and Health Administration.

(b) *Applicant* means an individual, partnership, company, corporation, association, or other organization that designs, manufactures, or assembles and that seeks certification or preliminary testing of a methane-monitoring system or component.

(c) *Methane-monitoring system* means a complete assembly of one or more methane detectors and all other components required for measuring and signalling the presence of methane in the atmosphere of a mine, tunnel, or other underground workings, and shall include a power-shutoff component.

(d) *Methane detector* means a component for a methane-monitoring system that functions in a gassy mine, tunnel, or other underground workings to sample the atmosphere continuously and responds to the presence of methane.

(e) *Power-shutoff component* means a component of a methane-monitoring system, such as a relay, switch, or switching mechanism, that will cause a control circuit to deenergize a machine, equipment, or power circuit when actuated by the methane detector.

(f) *Flammable mixture* means a mixture of a gas, such as methane, natural gas, or similar hydrocarbon gas with normal air, that can be ignited.

(g) *Gassy mine or tunnel* means a mine, tunnel, or other underground workings in which a flammable mixture has been ignited, or has been found with a permissible flame safety lamp, or has been determined by air analysis to contain 0.25 percent or more (by volume) of methane in any open workings when tested at a point not less than 12 inches from the roof, face, or rib.

(h) *Letter of certification* means a formal document issued by MSHA stating that a methane-monitoring system or subassembly or component thereof:

(1) Has met the requirements of this part, and

(2) Is certified for incorporation in or with permissible or approved equipment that is used in gassy mines and tunnels.

(i) *Component* means a part of a methane-monitoring system that is essential to its operation as a certified methane-monitoring system.

(j) *Explosion-proof* means that a component or group of components (subassembly) is so constructed and protected by an enclosure with or without a flame arrester(s) that, if a flammable mixture of gas is ignited within the enclosure, it will withstand the resultant pressure without damage to the enclosure and/or flame arrester(s). Also the enclosure and/or flame arrester(s) shall prevent the discharge of flame from within either the enclosure or the flame arrester, or the ignition of any flammable mixture that surrounds the enclosure and/or flame arrester.[1]

[1] Explosion-proof components or subassemblies shall be constructed in accordance with

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(k) *Normal operation* means that performance of each component as well as of the entire assembly of the methane-monitoring system is in conformance with the functions for which it was designed and for which it was tested by MSHA.

(l) *Flame arrester* means a device so constructed that it will prevent propagation of flame or explosion from within the unit of which it is part to a surrounding flammable mixture.

(m) *Intrinsically safe equipment and circuitry* means equipment and circuitry that are incapable of releasing enough electrical or thermal energy under normal or abnormal conditions to cause ignition of a flammable mixture of the most easily ignitable composition.

(n) *Fail safe* means that the circuitry of a methane-monitoring system shall be so designed that electrical failure of a component which is critical in MSHA's opinion will result in deenergizing the methane-monitoring system and the machine or equipment of which it is a part.

[31 FR 10607, Aug. 9, 1966, as amended at 39 FR 24003, June 28, 1974; 43 FR 12316, Mar. 24, 1978]

§ 27.3 Consultation.

By appointment, applicants or their representatives may visit Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059, to discuss with qualified MSHA personnel proposed methane-monitoring systems to be submitted in accordance with the regulations of this part. No charge is made for such consultation and no written report thereof will be made to the applicant.

[31 FR 10607, Aug. 9, 1966, as amended at 43 FR 12316, Mar. 24, 1978; 60 FR 35694, July, 11, 1995]

§ 27.4 Applications.

(a) No investigation or testing for certification will be undertaken by MSHA except pursuant to a written application, in duplicate, accompanied by all drawings, specifications, descriptions, and related materials and also a check, bank draft, or money order, payable to U.S. Mine Safety and Health Administration, to cover the fees. The application and all related matters and correspondence concerning it shall be addressed to Approval and Certification Center, RR 1, Box 251, Industrial Park Road, Triadelphia, WV 26059.

(b) Drawings, specifications, and descriptions shall be adequate in detail to identify fully all components and subassemblies that are submitted for investigation, and shall include wiring and block diagrams. All drawings shall include title, number, and date; any revision dates and the purpose of each revision shall also be shown on the drawing.

(c) For a complete investigation leading to certification, the applicant shall furnish all necessary components and material to MSHA. MSHA reserves the right to require more than one of each component, subassembly, or assembly for the investigation. Spare parts and expendable components, subject to wear in normal operation, shall be supplied by the applicant to permit continuous operation during test periods. The applicant shall furnish special tools necessary to assemble or disassemble any component or subassembly for inspection or test.

(d) The applicant shall submit a plan of inspection of components at the place of manufacture or assembly. The applicant shall furnish to MSHA a copy of any factory-inspection form or equivalent with the application. The form shall direct attention to the points that must be checked to make certain that all components or subassemblies of the complete assembly are in proper condition, complete in all respects, and in agreement with the drawings, specifications, and descriptions filed with MSHA.

(e) The applicant shall furnish to MSHA complete instructions for operating the assembly and servicing components. After completion of MSHA's investigation, and before certification, if any revision of the instructions is required, a revised copy thereof shall be submitted to MSHA for inclusion with the drawings and specifications.

[31 FR 10607, Aug. 9, 1966, as amended at 43 FR 12316, Mar. 24, 1978; 60 FR 35694, July, 11, 1995]

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the requirements of Part 18 of this subchapter.